

I. Rejection Under 35 U.S.C. §112

Claims 1-25 and 35 are rejected under 35 U.S.C §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

(a) Claim 1 is incomplete for not reciting the definitions of variables "Het" and "Ar".

Applicants have amended claim 1 so that it now includes the definitions of "Ar" and "Het". Support for this amendment can be found on page 8, lines 1-16, of the specification. In light of the above amendment, Applicants request that the rejection of claim 1 be reconsidered and withdrawn.

(b) Claim 5 lacks antecedent basis because it recites limitations such as phenyl, benzyl, and specific heteroaryl groups that are not recited in claim 1 since "Ar" and "Het" are not defined in claim 1. Applicants have amended claim 1 so that it now includes the definitions of "Ar" and "Het". In light of the amendment to claim 1, the rejection of claim 5 should be reconsidered and withdrawn.

(c) Claims 11, 16, and 17 lack antecedent basis because it recites specific substituents for  $R^5$  or species with  $R^5$  further substituted. However, claim 1 does not indicate whether  $R^5$  can be further substituted. Claim 1 has been amended to include the definitions of "Ar" and "Het", thus claim 1 does indicate that  $R^5$  can be further substituted. In light of the amendment to claim 1, the rejection of claims 11, 16, and 17 should be reconsidered and withdrawn.

(d) Claim 12 lacks antecedent basis because it recites the limitation of X as  $SO_2$  and  $CH_2-CO-$ , which is not recited in claim 1. Solely in order to expedite prosecution of this application, Applicants have canceled claim 12.

(e) Claim 14 lacks antecedent basis because it recites  $R^2$  as  $R'HNCH(R')C(O)-$  and  $R^5OC(O)NR'CH(R')C(O)$ , which is not in claim 1. Solely in order to expedite prosecution of this application, Applicants have canceled claim 14.

(f) Claims 2-4, 6-10, 13, 15, 18-25 and 34 are rejected as being dependent on claim 1, which is incomplete. Applicants have amended claim 1 as suggested by the Examiner, thus the rejection of claims dependant on claim 1 should be reconsidered and withdrawn.

## II. Provisional Double Patenting Rejection

Claims 1-5, 8-11, and 15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, and 31 of copending application No. 10/074,940. Claims 1-5, 8-11 and 15 are also provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8, 13-15, 19, 21-23, 31, 40, and 42-53 of copending Application No. 09/881,334. Applicants highlight to the Examiner that the instant application has an earlier priority date than 10/074,940 and 09/881,334. Applicants request, if subject matter is found allowable, the instant application issue as a patent.

IV. Conclusion

This reply is intended to distinctly and specifically point out presumed errors in the Examiner's Action, to respond to every ground of objection and rejection, and to advance this case to allowance.

In view of the above amendments and remarks, reconsideration of this application is requested. Should the Examiner have any questions or wish to discuss any aspect of this case, the Examiner is encouraged to call the undersigned agent at the number below.

Respectfully submitted,



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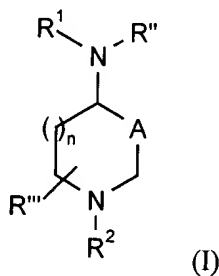
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the claims:**

Claims 12 and 14 were canceled. Therefore a marked-up version is not necessary.

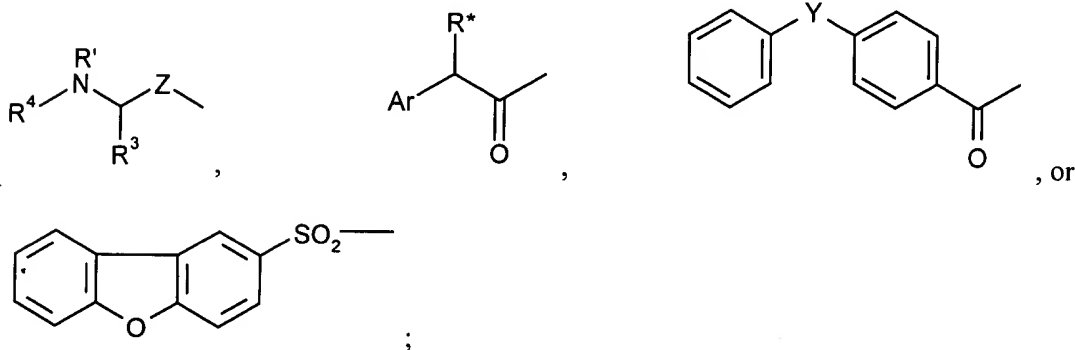
1. (Twice Amended) A compound according to formula (I):



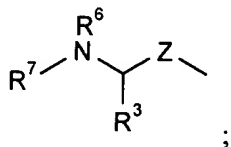
wherein:

A is C(O) or CH(OH);

R¹ is



R² is H, C<sub>1-6</sub>alkyl, C<sub>3-6</sub>cycloalkyl-C<sub>0-6</sub>alkyl, Ar-C<sub>0-6</sub>alkyl, Het-C<sub>0-6</sub>alkyl, R<sup>5</sup>C(O)-, R<sup>5</sup>C(S)-, R<sup>5</sup>SO<sub>2</sub>-, R<sup>5</sup>OC(O)-, R<sup>5</sup>R'NC(O)-, R<sup>5</sup>R'NC(S)-, adamantyl-C(O)-, or



R³ is H, C<sub>1-6</sub>alkyl, Ar-C<sub>0-6</sub>alkyl, or Het-C<sub>0-6</sub>alkyl;

$R'''$  is H,  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl- $C_{0-6}$ alkyl, Ar- $C_{0-6}$ alkyl, or Het- $C_{0-6}$ alkyl;

each  $R^3$  independently is H,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, Het, Ar or  $C_{1-6}$ alkyl optionally substituted by  $OR'$ ,  $SR'$ ,  $NR'_2$ ,  $R'NC(O)OR^5$ ,  $CO_2R'$ ,  $CO_2NR'_2$ ,  $N(C=NH)NH_2$ , Het or Ar;

$R^4$  is H,  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl- $C_{0-6}$ alkyl, Ar- $C_{0-6}$ alkyl, Het- $C_{0-6}$ alkyl,  $R^5C(O)-$ ,  $R^5C(S)-$ ,  $R^5SO_2-$ ,  $R^5OC(O)-$ ,  $R^5R'NC(O)-$ ,  $R^5R'NC(S)-$ ,  $R'HNCH(R')C(O)-$ , or  $R^5OC(O)NR'CH(R')C(O)-$ ;

each  $R^5$  independently is  $C_{3-6}$ cycloalkyl- $C_{0-6}$ alkyl, Ar- $C_{0-6}$ alkyl, Het- $C_{0-6}$ alkyl, Ar- $C_{0-6}$ alkoxy, Het- $C_{0-6}$ alkoxy, or  $C_{1-6}$ alkyl;

$R^6$  is H,  $C_{1-6}$ alkyl, Ar- $C_{0-6}$ alkyl, or Het- $C_{0-6}$ alkyl and  $R^7$  is H,  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl- $C_{0-6}$ alkyl, Ar- $C_{0-6}$ alkyl, Het- $C_{0-6}$ alkyl,  $R^5C(O)-$ ,  $R^5C(S)-$ ,  $R^5SO_2-$ ,  $R^5OC(O)-$ ,  $R^5R'NC(O)-$ ,  $R^5R'NC(S)-$ ,  $R'HNCH(R')C(O)-$ , or  $R^5OC(O)NR'CH(R')C(O)-$ ; or  $R^6$  and  $R^7$  are connected to form a pyrrolidine, a piperidine, or a morpholine ring;

each  $R'$  independently is H,  $C_{1-6}$ alkyl, Ar- $C_{0-6}$ alkyl, or Het- $C_{0-6}$ alkyl;

$R^*$  is H,  $C_{1-6}$ alkyl,  $C_{3-6}$ cycloalkyl- $C_{0-6}$ alkyl, Ar- $C_{0-6}$ alkyl, or Het- $C_{0-6}$ alkyl;

Y is a single bond or O;

each Z independently is CO or  $CH_2$ ; and

n is 0, 1, or 2

each Ar is independently unsubstituted phenyl or naphthyl; or phenyl or naphthyl substituted by one or more of Ph- $C_{0-6}$ alkyl, Het- $C_{0-6}$ alkyl,  $C_{1-6}$ alkoxy, Ph- $C_{0-6}$ alkoxy, Het- $C_{0-6}$ alkoxy, OH,  $(CH_2)_1-6NR'R'$ ,  $O(CH_2)_1-6NR'R'$ ; wherein each  $R'$  independently is H,  $C_{1-6}$ alkyl, Ar- $C_{0-6}$ alkyl, or Het- $C_{0-6}$ alkyl; or phenyl or naphthyl substituted by one to three moieties selected from  $C_{1-4}$ alkyl,  $OR'$ ,  $N(R')_2$ ,  $SR'$ ,  $CF_3$ ,  $NO_2$ , CN,  $CO_2R'$ ,  $CON(R')$ , F, Cl, Br and I, or substituted by a methylenedioxy group.;

each Het is independently a stable 5- to 7-membered monocyclic or a stable 7- to 10-membered bicyclic heterocyclic ring, which is either saturated or unsaturated, and which consists of carbon atoms and from one to four heteroatoms selected from the group consisting of N, O and S, and wherein the nitrogen and sulfur heteroatoms may optionally be oxidized, and the nitrogen heteroatom may optionally be quaternized, and including any bicyclic group in which any of the above-defined heterocyclic rings is fused to a benzene ring, and is may optionally be substituted with one or two moieties selected from  $C_{1-4}$ alkyl,  $OR'$ ,  $N(R')_2$ ,  $SR'$ ,  $CF_3$ ,  $NO_2$ , CN,  $CO_2R'$ ,  $CON(R')$ , F, Cl, Br and I, wherein each  $R'$  independently is H,  $C_{1-6}$ alkyl, Ar- $C_{0-6}$ alkyl, or Het- $C_{0-6}$ alkyl;

• or a pharmaceutically acceptable salt thereof.